

REMARKS

STATUS OF CLAIMS

Claims 2-7, 9, 11, and 12-13 are pending.

Claims 3-7, 9, 11-13 are rejected under 35 USC 103(a) as being unpatentable over Yao (US Patent No. 5,938,734) in view of Asamizuya (US Patent No. 6,314,576). Page 2, item 2 of the Office Action. Although not clear from the Office Action, claim 2 also appears to be rejected over Yao and Asamizuya in page 3, item 3 of the Office Action.

Claims 2, 3, 6, 9, 11, and 12-13 are amended.

New claim 15 is added.

Thus, claims 2-7, 9, 11, 12-13, and 15 remain pending for reconsideration, which is respectfully requested.

The foregoing rejections are traversed. No new matter has been added in this Amendment.

REJECTIONS

The Examiner maintains the previous rejections over the relied upon references. In particular, the Examiner rejects claims 3-7, 9, 11-13 under 35 USC 103(a) as being unpatentable over Yao in view of Asamizuya. Claim 2 also appears to be rejected over Yao and Asamizuya.

The Examiner's rationale rejecting independent claims 3, 9, 11, 12 and 13 is the same as the previous Office Action, such that the Examiner does not appear to expressly provide a rationale for rejecting the new features recited in the independent claims based upon the previous Amendment. In particular, in the previous Amendment dependent claim 3 was amended into independent form incorporating the features of claims 1 and 3. Other independent claims 9, 11, 12 and 13 were amended consistent with amended claim 3.

An Examiner interview is requested, which the Examiner has agreed to based upon a telephone conference with the Examiner on August 19, 2003.

CLAIMED INVENTION, YAO AND ASAMIZUYA

The idea of the invention is to externally control real-time stream data distribution to a receiving device and to externally control reproduction of the real-time stream data by the receiving device. See, for example, page 32, lines 19-25 of the present Application.

The independent claims 3, 9, 11, 12 and 13 are further amended to clarify the patentably distinguishing features of the invention.

INDEPENDENT CLAIMS 3, 12 and 13

In contrast to Yao and Asamizuya, the present invention as recited in amended independent claims 3, 12 and 13, using the recitation of amended claim 3 as an example, provides:

3. (CURRENTLY AMENDED) An information distribution/reproduction control apparatus, comprising:

a distribution control unit distributing a content as real-time reproducible stream information to a receiving device;

a reproduction control unit controlling the distribution control unit regarding distribution of the content to the receiving device and controlling the receiving device regarding the real-time reproduction of the stream information; and

a memory unit storing a distribution schedule information of the distribution control unit and the reproduction control unit,

wherein the distribution schedule information comprises information on a time and a date to start and end the distribution of the content, and the reproduction control unit controls the distribution control unit and the receiving device based on the stored distribution schedule information (emphasis added).

Support for the claim amendments can be found, for example, on page 27, line 6 to page 32, line 25, and FIG. 6, regarding operation of the transit control server 20; page 39, line 12 to page 47, line 16, FIGS. 8, 9; and page 116, lines 8-12.

First, Yao relates to a real time stream server capable of realizing a supply of a plurality of real-time data with different data rates by a scheduling scheme using constant time-slot interval and transfer start timing period (Yao, Abstract). Therefore, clearly Yao does not disclose or suggest the claimed recitation, "distribution schedule information," because Yao discloses a block transfer time, which differs from the present invention's claim 3 recitation, "distribution schedule information comprises a time and a date to start and to end the distribution of the content, and the reproduction control unit controls the distribution control unit and the receiving device based on the stored distribution schedule," allowing externally controlling distribution to a receiving device and externally controlling reproduction by the receiving device.

Second, clearly Yao does not disclose or suggest the claimed recitation, "a reproduction control unit controlling the distribution control unit regarding distribution of the content to the receiving device and controlling the receiving device regarding the real-time reproduction of the stream information." In other words, the claimed invention has a benefit of providing an apparatus (i.e., the present invention's transit control server 20) allowing externally controlling distribution and reproduction of real-time stream information to/at a receiving device.

The Examiner appears to assert that Asamizuya discloses the claimed invention in column 8, lines 57-65. Although Asamizuya relates to a video on demand system with the NVOD compilation unit 100, the NVOD play-out unit 200 and the transmission unit 300, Asamizuya does not contemplate the claimed apparatus having a distribution control unit distributing stream data to a client, and a reproduction control unit controlling the distribution control unit regarding the distribution of the stream data to the client and controlling the client regarding reproduction of the stream data. The present invention's claimed reproduction control unit controls both the distribution and the reproduction to/at a receiving device.

Although Asamizuya's NVOD units 100, 200, and 300 could correspond to the present invention's stream server 10 (i.e., claim 3 recitation, "a distribution control unit"), Asamizuya does not contemplate the recitation, "a reproduction control unit controlling the distribution control unit regarding distribution of the content to the receiving device and controlling the receiving device regarding the real-time reproduction of the stream information." More particularly, in Asamizuya's video-on-demand system, the subscriber unit 400 controls reproduction of the stream data and the NOVD units 100, 200, and 300 only control distribution, which differs from the present invention's "reproduction control unit." The present invention provides a "reproduction control unit," which controls the distribution control unit regarding distribution of the content to the receiving device and also controls the receiving device regarding the real-time reproduction of the content. In Asamizuya, the NOVD play-out unit 200 does not control the subscriber unit 400 regarding reproduction, because the NOVD play-out unit 200 operates so that signals are reproduced and output for multiple channels, such that the NOVD play-out unit 200 has a distribution function (see, column 11, lines 34-37). In Asamizuya, the NOVD play-out unit 200 differs from the present invention's recitation, "controlling the receiving device regarding the real-time reproduction of the stream information." In other words, the Asamizuya's NOVD units 100, 200 and 300 do not control the subscriber unit 400 relating to reproduction.

One benefit of the invention is to provide an apparatus/method that externally controls distribution of stream data to a receiving device and externally controls reproduction of the distributed stream data by the receiving device.

INDEPENDENT CLAIMS 9 and 11

In contrast to Yao and Asamizuya, the present invention as recited in amended independent claims 9 and 11, using the recitation of claim 11 as an example, provides:

a reproduction control unit controlling the distribution control unit regarding the distribution of the plurality of stream information to the receiving device and controlling the receiving device regarding a display method of the moving picture and a reproduction method of the voice relating to the real-time reproduction of the plurality of stream information; and

a memory unit storing importance level information of each stream information,

wherein the reproduction control unit controls the receiving device to reproduce a higher priority stream information over other stream information based on the stored importance level information (emphasis added).

Yao and Asamizuya do not disclose or suggest an apparatus controlling distribution of a plurality of stream information to a receiving device and controlling reproduction of the plurality of stream information by the receiving device according to importance level information.

DEPENDENT CLAIM 2

Further, claim 2 is amended for clarity as follows:

2. (CURRENTLY AMENDED) The information distribution/reproduction control apparatus according to claim 3, further comprising:

a change-over unit to be manipulated by an operator for changing a control condition of the reproduction control unit to another control condition,

wherein said reproduction control unit controls said receiving device according to the changed control condition.

Support for claim 2 can be found, for example, on page 50, lines 15-23; and page 116, lines 5-7. Claim 2 is at least patentably distinguishing due to its dependency from claim 3. Further, in contrast to Yao and Asamizuya, the present invention allows an operator at the distribution/reproduction apparatus in communication with the receiving device to change conditions of reproduction by the receiving device (i.e., "said reproduction control unit controls said receiving device according to the changed control condition"). Claim 2 provides the benefit of allowing externally controlling conditions of reproduction by the receiving device.

NEW INDEPENDENT CLAIM 15

Further, new claim 15 provides an alternative recitation of the present invention. In particular, claim 15 is directed to a system as shown in FIG. 1. The recited "distribution server" can correspond to the stream servers 10 and the recited "transit control server" can correspond to the transit control server 20 (see also, FIG. 3).

15. (NEW) A data streaming network system,
comprising:

a distribution server comprising a programmed computer processor distributing a content as real-time reproducible stream information to a client computer;

a transit control server in network communication with the distribution server and the client computer and comprising a programmed computer processor controlling the distribution of the content by the distribution server and controlling conditions of the real-time stream information reproduction by the receiving device.

Yao and Asamizuya do not disclose or suggest the claim 15 recitation, "a transit control server in communication with the distribution server and the client computer and ... controlling the distribution of the content by distribution server and controlling conditions of the stream information reproduction by the receiving device."

CONCLUSION

Dependent claims 2 and 4-7 (depending from claim 3) recite patentably distinguishing features of their own, and, further, are at least patentably distinguishing due to their dependencies from independent claim 3.

In view of the amendments and remarks presented above, it is respectfully submitted that the application is in condition for allowance, and withdrawal of the rejection of claims 2-7, 9, 11, and 12-13 and allowance of these claims and new claim 15 is respectfully requested.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Respectfully submitted,
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